December 10 - 16, 2004

There was no impact from the Geminids Meteor Shower (peak period) on December 13, 2004.

The EPGN lockup problem on Nov. 29 was determined to be an EDOS problem.
Subsequent analysis of tape received from EPGN showed data intact. Lockup
occurred between EDOS and the modem Alaska.

The MISR geo-location error reported on November 14 and 15 was identified as a MISR
science software problem. In other words, this was not a spacecraft issue.

Status of Key Upcoming Schedule Milestones:

The seventh Terra re-engineering meeting was held on 12/15/04 to present the Eclipse
tool
Auto Cecil. It allows the FOT to automate the execution of ground-initiated activities
(including procedures) via a timeline. Also, a closer look at Scenario Scheduler was
made
through direct examination in the TRMM MOC.

The geolocation problem observed at 3 direct broadcast sites starting in early
December
was attributed to an orbital parameter (z-axis angular momentum) that is used to flag
when ephemeris data is considered invalid. There is no basis for the current limit. The
simple
fix was to decrease (make more negative) this limit so ephemeris data is not flagged
invalid.
Subsequent geo-location calculations have proceeded without problems. The FOT/FDF are
currently
running simulations to determine more appropriate limits on z-axis angular momentum so
this
problem will not occur in the future.

Spacecraft Activities/Anomalies/Issues:

One MIR occurred this week having to do with the High Gain Antenna Motor Drive
Assembly (MDA2) BITE failures while in the South Atlantic Anomaly (SAA). In all
cases there was no impact to science objectives and no data loss.

Ground System and Data Processing System Anomalies/Issues:

Six MIRs occurred this week having to do with K-band dropouts with TDS during
science data playback. This is a common problem that occurs more frequently (1-
2/week) this time of year. In any event, no science data was lost due to
replaying data during the same TDRSS contact.

One MIR occurred this week having to do with no telemetry at AOS. Subsequent examination of the ATC showed the spacecraft was configured for a non-coherent event while WSC, EDOS, and all other documents were set for a coherent event. No science data was lost due to replaying data on next TDRSS contact.

One MIR occurred this week involving no bit lock at AOS. A re-acquisition command was sent and bit lock was achieved. There was no impact to science objectives and no data loss.

One MIR occurred this week where the 512k HK data stream was lost on an EPGN ground proficiency playback. This is a common problem that occurs at SKS.

One MIR occurred this week having to do with a command error during a science data replay. Command was sent again and worked fine. This is possibly the SSR command anomaly that we have seen 56 times since launch. With this anomaly, bit flips occur resulting in corrupted command(s). This particular MIR is still under investigation. No impact to science objectives or data.

Two MIRS occurred this week having to do with lost UPDs (data statistics) from WSC. WSC had to re-initialize the startup of UPDs and FOT had to re-connect. UPDs flowed again after these two actions. No impact to science objectives or data.